t44_hilbert1 (TMFyR-FAr6GSLcQEkpm9bSvVFXwe6C8dBsJp)

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Let $m1\_subset\_1 : \iota{\Rightarrow}\iota{\Rightarrow}o$ be given. Let $k1\_hilbert1 : \iota$ be given. Let $k3\_hilbert1 : \iota{\Rightarrow}\iota{\Rightarrow}\iota$ be given. Let $k4\_hilbert1 : \iota{\Rightarrow}\iota{\Rightarrow}\iota$ be given. Let $k6\_hilbert1 : \iota$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1){\Rightarrow}(\forall X1.(m1\_subset\_1\ X1\ k1\_hilbert1){\Rightarrow}(k3\_hilbert1\ (k4\_hilbert1\ X0\ X1)\ (k4\_hilbert1\ X1\ X0) \in k6\_hilbert1)) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1){\Rightarrow}(\forall X1.(m1\_subset\_1\ X1\ k1\_hilbert1){\Rightarrow}(\forall X2.(m1\_subset\_1\ X2\ k1\_hilbert1){\Rightarrow}(k3\_hilbert1\ (k4\_hilbert1\ (k3\_hilbert1\ X0\ X1)\ (k4\_hilbert1\ X0\ X2))\ (k4\_hilbert1\ X1\ X2) \in k6\_hilbert1))) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1){\Rightarrow}(\forall X1.(m1\_subset\_1\ X1\ k1\_hilbert1){\Rightarrow}(\forall X2.(m1\_subset\_1\ X2\ k1\_hilbert1){\Rightarrow}(((k3\_hilbert1\ X0\ X1 \in k6\_hilbert1)\wedge(k3\_hilbert1\ X1\ X2 \in k6\_hilbert1)){\Rightarrow}(k3\_hilbert1\ X0\ X2 \in k6\_hilbert1)))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k1\_hilbert1)\wedge(m1\_subset\_1\ X1\ k1\_hilbert1)){\Rightarrow}(m1\_subset\_1\ (k4\_hilbert1\ X0\ X1)\ k1\_hilbert1) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k1\_hilbert1)\wedge(m1\_subset\_1\ X1\ k1\_hilbert1)){\Rightarrow}(m1\_subset\_1\ (k3\_hilbert1\ X0\ X1)\ k1\_hilbert1) \tag{5}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1){\Rightarrow}(\forall X1.(m1\_subset\_1\ X1\ k1\_hilbert1){\Rightarrow}(\forall X2.(m1\_subset\_1\ X2\ k1\_hilbert1){\Rightarrow}(k3\_hilbert1\ (k4\_hilbert1\ (k3\_hilbert1\ X0\ X1)\ (k4\_hilbert1\ X0\ X2))\ (k4\_hilbert1\ X2\ X1) \in k6\_hilbert1)))$$